IAPS Ree'd PCT/PTO 22 NOV 2005

PTO-1390 (Rev. 02-2005)
Approved for use through 3/31/2007. OMB 0651-0021
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TRANSMITTAL LETTER TO THE UNITED STATES

ATTORNEY'S DOCKET NUMBER 2017-47

| CO | NCERNING A SUBMISSION | U.S. APPAIOATIONINO HI BOWN SP 32CFR 1.5) | | | | | | | |
|---|---|--|--------------------------------------|--|--|--|--|--|--|
| | ATIONAL APPLICATION NO. R2004/001313 | INTERNATIONAL FILING DATE June 2, 2004 | PRIORITY DATE CLAIMED June 3, 2003 | | | | | | |
| TITLE OF INVENTION THE ENZYMATIC METHOD OF MAKING 1,2-DIOL DERIVATIVES AND THEIR ESTERS WITH SUCCINE ANHYDRIDE | | | | | | | | | |
| APPLICANT(S) FOR DO/EO/US | | | | | | | | | |
| SOON OOK HWANG, DO HOON KIM, HYE YOUN RYU, TAE IM LEE & SUN HO CHUNG Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information: | | | | | | | | | |
| 1. 🗸 | This is a FIRST submission of items concerning a submission under 35 U.S.C. 371. | | | | | | | | |
| 2. | This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371. | | | | | | | | |
| 3. 🗸 | This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below. | | | | | | | | |
| 4. 🗸 | The US has been elected (Article 31). | | | | | | | | |
| 5. 🗸 | A copy of the International Application as filed (35 U.S.C. 371(c)(2)) | | | | | | | | |
| | a. is attached hereto (required only if not communicated by the International Bureau). | | | | | | | | |
| | b. 🕢 has been communicated by the International Bureau. | | | | | | | | |
| | c. is not required, as the application was filed in the United States Receiving Office (RO/US). | | | | | | | | |
| 6. | An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)). | | | | | | | | |
| | a. is attached hereto. | | | | | | | | |
| _ | b. 🚺 has been previously submit | tted under 35 U.S.C. 154(d)(4). | | | | | | | |
| 7. | Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)) | | | | | | | | |
| | a. are attached hereto (required only if not communicated by the International Bureau). | | | | | | | | |
| | b. — have been communicated by the International Bureau. | | | | | | | | |
| | c. have not been made; however, the time limit for making such amendments has NOT expired. | | | | | | | | |
| _ | d. Land have not been made and w | will not be made. | | | | | | | |
| 8. | An English language translation of the | e amendments to the claims under PCT Art | icle 19 (35 U.S.C. 371(c)(3)). | | | | | | |
| 9. 🗹 | An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). | | | | | | | | |
| 10. | An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)). | | | | | | | | |
| Items 11 to 20 below concern document(s) or information included: | | | | | | | | | |
| 11. 🗸 | An Information Disclosure Statement | under 37 CFR 1.97 and 1.98. | | | | | | | |
| 12. 🔽 | An assignment document for recording | g. A separate cover sheet in compliance wi | th 37 CFR 3.28 and 3.31 is included. | | | | | | |
| 13. | A preliminary amendment, | | | | | | | | |
| 14. | An Application Data Sheet under 37 CFR 1.76. | | | | | | | | |
| 15. | A substitute specification. | | | | | | | | |
| 16. 🗹 | A power of attorney and/or change of | address letter. | | | | | | | |
| 17. | A computer-readable form of the sequ | uence listing in accordance with PCT Rule 1 | 3ter.2 and 37 CFR 1.821- 1.825. | | | | | | |
| 18. 🔽 | A second copy of the published Intern | national Application under 35 U.S.C. 154(d)(| 4). | | | | | | |
| 19. 🔲 | A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4). | | | | | | | | |
| 20. 🗸 | Other items or information: Internati | ional Search Report | | | | | | | |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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| U.S. APPLICATION NO. (if known, see 37 CFR 1.5) INTERNATIONAL APPLICATION NO. | | | ATTORNEY'S DOCKET NUMBER | | | | | | |
|--|---|------------------------|--|----------------|-----------------------|--------------|--|--|--|
| | 10/りり | 805/ | PCT/KR2004/00 | 01313 | 2017-47 | | | | |
| The following fees have been submitted | | | | | CALCULATIONS | PTO USE ONLY | | | |
| 21. 🖊 Basi | 21. A Basic national fee \$300 | | | | \$ 300.00 | | | | |
| If International pr PCT Article 33 | nination fee reliminary examin 8(1)-(4) | \$ 200.00 | | | | | | | |
| Search fee (37 C | nal Searching Aut rch Report prepar | \$ 500.00 | | | | | | | |
| | TOTAL OF 21, 2 | \$ 1,000.00 | | | | | | | |
| sequence lis | e for specification ting or computer 250 for each addit | | | | | | | | |
| Total Sheets | Extra Sheets | | n additional 50 or fraction up to a whole number) | RATE | | | | | |
| - 100 = | /50 = | | | x \$250 | \$ 0.00 | | | | |
| Surcharge of \$13 claimed priority da | | \$ 0.00 | | | | | | | |
| CLAIMS | NUME | ER FILED | NUMBER EXTRA | RATE | \$ | | | | |
| Total claims | | 3 - 20 = | | x \$50 | \$ 0.00 | | | | |
| Independent clain | ns | 1 -3= | | x \$200 | \$ 0.00 | | | | |
| MULTIPLE DEPE | NDENT CLAIM(S | 6) (if applicable) | | + \$360 | \$ 0.00 | | | | |
| | | * | TOTAL OF ABOVE | CALCULATIONS = | \$ 1,000.00 | | | | |
| Applicant clai | ms small entity st | atus. See 37 CFR | 1.27. Fees above are reduc | ed by 1/2. | | | | | |
| | | \$ 500.00 | | | | | | | |
| Processing fee of claimed priority da | | \$ 0.00 | | | | | | | |
| | | | TOTAL | NATIONAL FEE = | \$ 500.00 | | | | |
| Fee for recording by an appropriate | | \$ 40.00 | | | | | | | |
| | | \$ 540.00 | | | | | | | |
| | | Amount to be refunded: | \$ | | | | | | |
| | | | | | Amount to be charged: | \$ | | | |
| a. A check in the amount of \$ to cover the above fees is enclosed. | | | | | | | | | |
| b. Please charge my Deposit Account No in the amount of \$ to cover the above fees. A duplicate copy of this sheet is enclosed. | | | | | | | | | |
| c. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No50-3566 A duplicate copy of this sheet is enclosed. | | | | | | | | | |
| d. Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. | | | | | | | | | |
| NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status. | | | | | | | | | |
| SEND ALL CORRESPONDENCE TO: CLISTOMER NO: 52 706 | | | | | | | | | |
| CUSTOME | R NO: 52,7 | ر ک | 11/22/05 | | | | | | |
| "EXPRESS MAIL" LAB | EL NUMBER EO | Bame | | | | | | | |
| DATE OF DEPOSIT: 1 BEING DEPOSITED W | 1/22/05 TH THUNITED STATES | | | | | | | | |
| ADDRESSEE SERVICE TO: MAIL STOP PCT, BY | E UNDER 37 CFR 1.10 | | | | | | | | |
| BY | - James | ON NUMBER | | | | | | | |